Automation the Road to Sustainability

The way forward

While organisations are having to consider improving their carbon footprint through solar panels, better heating controls and electrifying their fleet of vehicles to meet their customers' requirements to have a green supply chain. An easy win is to look at the automation of your system and processes. By upgrading your systems not only do you improve your green credentials you can also save energy thereby reducing costs and increasing your operational efficiency.

We are now in the fourth industrial revolution, also referred to as Industry 4.0. Characterised by increasing the use of artificial intelligence (AI), automation and the employment of smart machines and smart factories, the collection and use of informed data helps to produce goods more efficiently and productively.

Industry 4.0 is now being started to roll out through industry and is seen as the next revolution in industrialisation. The main focus is to take all the individual processes and systems that are used in manufacturing to manage and control production, and import them into a centralised system This allows the workflow, product changes and the management of each and every individual machine or a series of machines can be controlled remotely. Centralised computing and the internet of things are the two main components needed to introduce industry 4.0 into a business.

While this step is a major leap forward but does not require large investments in infrastructure and instrumentation to start to make it work, while this will be the norm in the decades to come this investment can be phased over several years.

The first step on this journey is to look at replacing and enhancing your existing control system, whether by installing a few critical components that allow for greater monitoring or installing a whole system and a Supervisory Control And Data Acquisition (SCADA) process control system. SCADA uses networked data communications and graphical user interfaces for high-level process supervisory management, but it also uses other integrated systems such as programmable logic controllers often known as PLC's and PID controllers to interface with the process plant or machinery. These can be further enhanced by the introduction of a enterprise resource planning (ERP)system these combined systems are often called Manufacturing Execution Systems (MES)

SHAPA members have an extensive knowledge of building and supplying equipment for the control and management of factory and production systems More information about the

gained by visiting the process and instrumentation section on the equipment finder page on the SHAPA website at www.shapa.co.uk . All this data is available free as part of SHAPA's mission to benefit the whole of the industry at large.

Should you need to speak with someone about a specific enquiry on how you can increase the effectiveness of your processes, please send an enquiry in to info@shapa.co.uk or call 01904 373040. All enquiries will be actioned quickly and passed onto member companies best able to deal with your enquiry.

Of course, if you are a supplier within solids and bulk handling industries, the next step should be to enquire about whether SHAPA membership could benefit your organisation. Since 1981 SHAPA has existed to be the focus of excellence within our industries and be the association of choice for its manufacturers and suppliers. 2024 sees the Association going from strength to strength with many long-standing members and actively attracting new companies. The SHAPA website, showcases the continuing advantages of SHAPA to its members and industry at large. Visit www.shapa.co.uk or for further information email info@shapa.co.uk or call 01904 373040